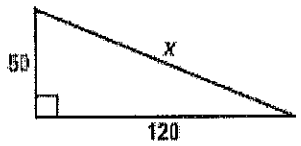
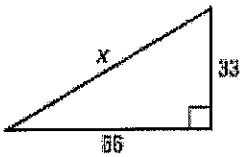
ALGEBRA Find the length of the hypotenuse of the right triangle.

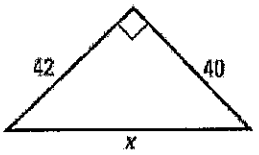
3. $x^2 = 50^2 + 120^2$, 16900, $x = 130$



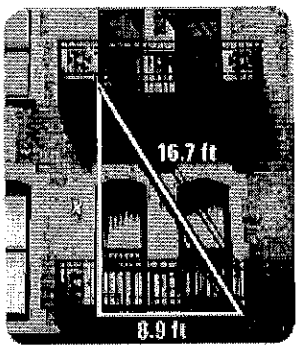
4. $x^2 = 33^2 + 56^2$, 4225, $x = 65$



5. $x^2 = 42^2 + 40^2$, 3364, $x = 58$

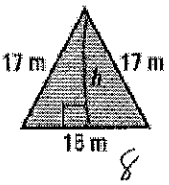


8. $16.7^2 = x^2 + 8.9^2$, $278.89 = x^2 + 79.21$, $199.68 = x^2$, $14.1 \text{ ft} \approx x$



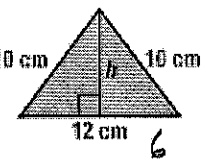
FINDING THE AREA Find the area of the isosceles triangle.

11. $17^2 = 8^2 + h^2$, $15 = h$, $15 \text{ m} = h$, $A = \frac{1}{2} 16 \cdot 15$, $A = 120 \text{ m}^2$



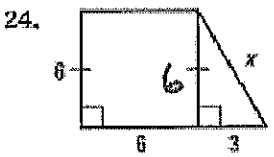
12. $20^2 = h^2 + 16^2$, $144 = h^2$, $12 \text{ ft} = h$, $A = \frac{1}{2} 12 \cdot 32$, $A = 192 \text{ ft}$

13. $h = 8$, $A = \frac{1}{2} 12 \cdot 8$, $A = 48 \text{ cm}^2$



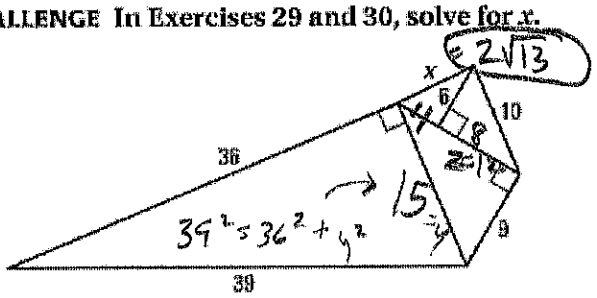
FINDING SIDE LENGTHS Find the unknown side length x. Write your answer in simplest radical form.

24. $x^2 = 6^2 + 3^2$, $36 + 9$, $x^2 = 45$, $x = 3\sqrt{5}$



CHALLENGE In Exercises 29 and 30, solve for x.

29. $39^2 = 36^2 + y^2$, 15, 225, -81, 144, $y = 12$, $4^2 + 6^2 = x^2$, $16 + 36$, 52, $x = 2\sqrt{13}$



CLASSIFYING TRIANGLES In Exercises 15–23, decide if the segment lengths form a triangle. If so, would the triangle be *acute*, *right*, or *obtuse*?

15. 10, 11, and 14 — acute ($221 > 196$)
16. 10, 15, and $5\sqrt{13}$ — Right ($100 + 225 = 325$)
17. 24, 30, and $6\sqrt{43}$ — Obtuse ($1476 > 1548$)
18. 5, 6, and 7 — Acute ($25 + 36 > 49$)
19. 12, 16, and 20 — Right (400)
20. 8, 10, and 12 — acute
21. 15, 20, and 36 — Not △
22. 6, 8, and 10 — Right
23. 8.2, 4.1, and 12.2 — Obtuse ($67.24 + 16.81 < 148.84$)